is installed. The use of nonapproved equipment is prohibited.

[USCG–2003–16630, 73 FR 65200, Oct. 31, 2008]

§ 111.105–7 Approved equipment.

When this subpart or NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1) states that an item of electrical equipment must be approved, or when IEC 60079–0 (incorporated by reference; see 46 CFR 110.10–1) states that an item of electrical equipment must be tested or approved in order to comply with the IEC 60079 series (as defined in §111.105–1 and incorporated by reference; see 46 CFR 110.10–1), that item must be—

(a) Listed or certified by an independent laboratory as approved for use in the hazardous locations in which it is installed; or

(b) Purged and pressurized equipment that meets NFPA 496 (incorporated by reference; see 46 CFR 110.10–1) or IEC 60079–2.

[CGD 94–108, 61 FR 28284, June 4, 1996, as amended by USCG–2003–16630, 73 FR 65200, Oct. 31, 2008]

§ 111.105–9 Explosion-proof and flameproof equipment.

Each item of electrical equipment required by this subpart to be explosion-proof under the classification system of NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1) must be approved as meeting UL 1203 (incorporated by reference; see 46 CFR 110.10–1). Each item of electrical equipment required by this subpart to be flameproof must be approved as meeting IEC 60079–1 (incorporated by reference; see 46 CFR 110.10–1).

[USCG–2003–16630, 73 FR 65200, Oct. 31, 2008]

§ 111.105–11 Intrinsically safe systems.

(a) Each system required by this subpart to be intrinsically safe must use approved components meeting UL 913 or IEC 60079–11 (both incorporated by reference; see 46 CFR 110.10–1).

(b) Each electric cable of an intrinsically safe system must—

(1) Be 50 mm (2 inches) or more from cable of non-intrinsically safe circuits, partitioned by a grounded metal barrier from other non-intrinsically safe electric cables, or a shielded or metallic armored cable; and

(2) Not contain conductors for non-intrinsically safe systems.

(c) As part of plan approval, the manufacturer must provide appropriate installation instructions and restrictions on approved system components. Typical instructions and restrictions include information addressing—

(1) Voltage limitations;

(2) Allowable cable parameters;

(3) Maximum length of cable permitted;

(4) Ability of system to accept passive devices;

(5) Acceptability of interconnections with conductors or other equipment for other intrinsically safe circuits; and

(6) Information regarding any instructions or restrictions which were a condition of approval of the system or its components.

(d) Each intrinsically safe system must meet ISA RP 12.6 (incorporated by reference, see 46 CFR 110.10–1), except Appendix A.1.

[CGD 94–108, 61 FR 28284, June 4, 1996, as amended at 62 FR 23909, May 1, 1997; USCG–2003–16630, 73 FR 65200, Oct. 31, 2008]

§ 111.105–15 Additional methods of protection.

Each item of electrical equipment that is—

(a) A powder-filled apparatus must meet IEC 60079–5 (incorporated by reference; see 46 CFR 110.10–1);

(b) An oil-immersed apparatus must meet either IEC 79–6 (incorporated by reference; see 46 CFR 110.10–1) or Article 500.7(I) of NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1);

(c) Type of protection ''e'' must meet IEC 60079–7 (incorporated by reference; see 46 CFR 110.10–1);

(d) Type of protection ''n'' must meet IEC 60079–15 (incorporated by reference; see 46 CFR 110.10–1); and

(e) Type of protection ''m'' must meet IEC 79–18 (incorporated by reference; see 46 CFR 110.10–1).

[USCG–2003–16630, 73 FR 65200, Oct. 31, 2008]

§ 111.105–17 Wiring methods for hazardous locations.

(a) Through runs of marine shipboard cable meeting subpart 111.60 of this